REMARKS

Section 112 Rejections

Claims 5, 35 and 36 have been canceled. Claims 4 and 34 have been amended to remove references to specific trademarks and make it clear that a single data viewer can have access to at least two different data sources operating under different data systems.

Section 102 Rejections

The examiner has rejected claim 1 as anticipated by Bogrett (US 6,581,054). Claim 1 has been amended to make it clear that a portal contains one or more data viewers, more than one portal can be viewed simultaneously, each data viewer has access to one or more data sources and is configured to analyze the data contained in such data sources, and one or more data viewers from one portal can be merged into another portal. Bogrett is distinguishable because Bogrett uses the term "portal" in a very different sense than that in which it is used in the present invention. Furthermore, the portals of the present invention—and the data viewers associated with those portals—function in an entirely different manner than the portal and viewers of Bogrett, for the reasons explained more fully below.

In the present invention, the term "portal" means a window (or viewer) in which one of more other data viewers is/are displayed. Each data viewer, in turn, is in communication with and presents data from one or more data sources. As stated in the application (page 19, lines 13-14), "[p]ortals are used in the system of this invention to organize viewers and to create collections of data analyses." Furthermore, "[w]hen users access the portal, the underlying viewers are connected to the data and are ready to perform the requested analysis." (See application, page 19, lines 16-18).

The Bogrett portal has a database tier, a server tier, and a client tier connected by one or more networks. (See column 3, lines 41-42). The database tier includes one or more databases. (See column 3, lines 57-58). The server tier includes, among other things, a database access system. (See column 4, lines 9-10). As the examiner has correctly pointed out, the graphical user interface includes a set of viewers. (See column 7, line 36). Each viewer, in turn, provides a combination of data views for tables, graphs, reports, etc., and allows users to switch from any view of data to any other view and to sort and filter data. (See column 7, lines 61-64).

The significant differences between the Bogrett "portal" and the portals of the present invention are as follows:

(1) The present invention can display more than one portal concurrently with other portals. (See page 4, lines 17-18 and 22-24, page 5, lines 17-19, 22 and 25, page 24, line 19, page 34, lines 28-30, page 41, lines 1-3, and page 43, line 32 of the present application.) Bogrett, on the other hand, teaches that a "viewer creates a combination of data views" (see column 7, lines 61-64 and Figures 11 and 12) wherein each viewer is placed in a single tab or a series of tabs (see Figures 11 and 12). For Bogrett to display multiple portals as in the present invention, all of the content of Figure 11 or 12 would have to be implemented in yet a higher viewer, so as to display the Figure 11 or 12 content concurrently and additionally with the content of still other collections of viewers. Bogrett does not do that. Further, Bogrett teaches about a portfolio catalog of saved and related views (see column 4, lines 28-30), but there is no provision for concurrently

displaying more than one catalog entry. Claim 1 has been amended to provide that more than one portal can be viewed simultaneously.

(2) The portal of the present invention can be dynamically created and launched based on the user alerting specifications for operations, such as in data set copying or compares (see page 24, lines 17 and 27, of the present application). Bogrett's viewers, on the other hand, are created through a user's manual specification (see Bogrett column 7, lines 61-64).

(3) In the present invention, the contents of a portal can not only be edited by adding and deleting data viewers, but also by merging the contents (or the data viewers) of one portal with another (see page 32, lines 4-21, of the present application). Because each data viewer encapsulates the information necessary to completely rebuild itself (*e.g.*, the viewer type and the related data sources), a data viewer can be moved from one portal to another without having to recreate the process of selecting a data source and viewer. This merger process does not involve simply capturing the various displays, but rather, it involves transforming the parameters of the data viewer(s) being copied in such a manner so as to be fully operational in the receiving portal. In the present invention, this is accomplished whether the receiving portal is owned by the same or a different user, and even if it is operating on a different hardware platform. Further, for each data viewer being moved from one portal to another, the migrating data viewer must not interfere with other data viewer components in the same or other portals. In order to achieve this isolation, the data sources are

cloned (see page 29, line 17 and 21 of the present application) so as to isolate different instances of an original data source. Thus, each data viewer or portal component has its own "cloned" instance of a data source. There is no reference in Bogrett to such data cloning, which is necessary to effectuate the merger feature of the present invention. Claim 1 has been amended to provide that one or more data viewers from one portal can be merged into another portal.

(4) In the present invention, a portal supports the editing of data across portals. For example, the same data-edit actions, in particular, data copying and pasting, may be applied across portals. This is due to the federation functionality of a portal. The term "federation" is generally known in the industry, and it refers to the ability to associate elements of one "domain of discourse" (or data source) with elements in another domain of discourse that have similar meaning (for example, "Tel No" in one database as compared to "Telephone" in another database). (See page 3, lines 23 and 24 of the present application.) It is not clear whether federation is used in connection with the Bogrett invention, but there is no question that Bogrett does not use federation to support the editing of data across portals (because you can only have one portal open at a time in Bogrett).

(5) In Bogrett, a portal is essentially a windowing device wherein a window can contain other windows and possess the features that we all have become accustomed to while working on PCs and Macintosh computers.

Bogrett does not teach of portals used as devices for capturing work and then sharing it with others, as is done in the present invention. In the present invention, a portal is the work space for a user wherein both work-in-progress and results of analysis may be collected and subsequently preserved for later use and sharing with others. This preserved portal includes all of the required parameters to completely regenerate the contents of a portal based on the current state of the sources of data involved. This is particularly significant for collaborative operations and where work flows from one organizational element to another. In such scenarios, the portal can become the analytical and data glue for coherent activities. Further, in that the portal is a work space, it is reasonable to expect that more than one portal is needed wherein each portal represents a different work space of the same or even different problem spaces. Thus, a portal must be sufficiently isolated in its behavior so as to properly coexist with other portals, concurrently displayed or catalogued, even in those cases where one or more portals is/are applying the same sources of data. (For support for these statements in the present application, see, without limitation, page 5, lines 6-25, page 25, lines 25-27, page 14, lines 15-19, page 20, lines 19-27, page 22, lines 28-32, and Section 1.4.5 beginning on page 29.)

(6) The data viewers of the present invention are distinguishable from the Bogrett "viewers." In the present invention, each viewer is an analytical element with features for displaying the results of the analysis. Each

viewer is sufficiently abstract so as to have features for refinement of the data being analyzed and for customization of the manner in which data is displayed. (See page 12, lines 10-12, page 16, lines 8-18, page 18, lines 22-23, page 22, lines 25-27, and page 34, lines 1-2 of the present application.) As with the viewer's portal parent, each viewer must also have the ability to be preserved and later reused or shared in the same or different work sessions while also remaining operationally isolated from other viewers. For example, one viewer could be analyzing the beginning of a list of data, while another viewer is analyzing data in the middle of that same list, and still another viewer could be analyzing all of the data in that same list. (For support for these statements in the present application, see page16, lines 8-18, page 21, lines 18-26, page 22, lines 4-6, page 25, lines 10-11, and page 27, lines 1-5.) This functionality of the viewer as an analytical tool is not contemplated in Bogrett and is captured in the limitation of claim 1 that each data viewer is "configured to analyze data in the data sources and display the results of said analysis."

(7) The data viewers of the present invention may derive new data elements (*e.g.*, table columns) and summaries of any data elements beyond that available through SQL. (See page 166, lines 2-6 of the present application.) Bogrett's viewers, on the other hand, use SQL features only. (See, without limitation, Bogrett column 6, lines 36-48 and column 11, lines 50-56.) These features are typically required for JDBC drivers on legacy systems that do not already incorporate such features.

In light of the above remarks concerning how the term "portal" is to be interpreted in the context of the present invention, as supported by the specification, together with the amendments that have been made to claim 1, claim 1 should be in a condition for allowance.

Because claim 1 has been amended, the applicant respectfully submits that claims 2 and 3 should be allowed because they incorporate the limitations of clam 1. Claims 2 and 3 provide that the data sources, as used in the context of the present invention, can be accessible a number of different ways.

Similarly, claims 4 and 5 have been rejected on the basis of Bogrett, column 6, lines 33-35. Claim 5 has been canceled. Claim 4 has been amended to provide that at least one data viewer has access to at least two data sources that operate under different data systems. Given the above remarks as they relate to the operation of data viewers in the context of the present invention, and the amendments that have been made to claim 1, claim 4 should be allowable.

Claim 6 has been rejected based on tool bar 488 in Figure 11 of the Bogrett patent. Reference number 488 is not a tool bar; however. It is a pull-down menu located along the top edge of the display window. (See column 16, lines 19-22). It is not clear to the applicant how the drop-down menu (488) anticipates using an interface comprising a data source controller configured to create, edit, organize, select, and delete connection specifications for the one or more data sources utilized in connection with the present invention. Accordingly, the applicant respectfully submits that the rejection of claim 6 is misplaced.

With regard to claim 7, the examiner is correct in noting that it is well known that data can be viewed in a table format. What is novel, however, is being able to import data in a data viewer from one portal to another without changing the format of the data viewer. (Support for this amendment is found on page 5, lines 9-14 and 23-24, page 19, lines 22-26, page 20, lines 19-27, page 23, lines 11-13, page 27, lines 2-8, page 28, lines 1-5, page 30, lines 9 and 20-25, page 33, lines 21-25, page 34, line 30 through page 35, line 1, and page 35, lines 8-10 of the present application.) Claim 7 has been amended to make this clear.

Section 103 Rejections

Claim 8 has been rejected as obvious in light of Bogrett and Lai *et al.* (US 5,596,745); however, neither of these references teaches or suggests the concurrent visualization and manipulation of data from different sources *wherein that data can be moved from one portal to another*. Thus, claim 8 should be in a condition for allowance based on the amendments to claim 1.

Claim 9-19 have been rejected by the examiner as obvious in light of Bogrett and Lipkin (US 6,721,747). Claim 9, 10, 11, 12 and 17 all relate to the state-save facility. The state-save facility of the present invention is used in a very different way than the state-save facility of Lipkin, however. In the present invention, the state-save facility is used to rebuild the data viewers by recreating queries to the underlying databases and reflecting the data as it exists at the time the data viewers are rebuilt. This is very different from the logging functionality referred to in Lipkin, which simply records events or properties, such as the date on which a change was made to a document or the identity of the user making a change.

Claim 9 has been amended to make it clear that the state-save facility is used to rebuild the data viewers in a subsequent session.

Claim 10 has been amended to make it clear that when a data viewer is rebuilt, it displays the data as it exists at the time at which the data viewer is rebuilt.

Claim 11 has been amended to make it clear that the word "viewer" refers to a data viewer.

Claim 12 has been amended to make it clear that the save-state facility is used to rebuild all of the data viewers associated with a particular portal by requerying the data sources associated with said data viewers at the point in time in which the portal is reopened. In other words, each data viewer within a portal is dynamically rebuilt to reflect the data structures and content represented in the underlying data system or systems *at the time the portal is reopened.* (See page 34, line 24, through page 35, line 1 of the present application, as well as the references cited in connection with the amendments to claim 7 above.) This is a dynamic—not a static—functionality, which is the key distinction between the save-state facility of the present invention and the logging functionality referred to in Lipkin.

Claim 17 has been amended to delete the words "and load" before "facility" to avoid a possible antecedent basis issue. This claim has also been amended to make it clear that what is being shared among users is the data viewers themselves and the data associated with the data viewers.

Claim 13 has been canceled because the limitation of claim 13, namely, that the contents (or data viewers) of one portal can be merged with another, has been incorporated into the revised claim 1.

Claims 14, 15, 16 and 18 have been revised so that the language relating to the merger of the contents of portals is consistent with the language of claim 1, as amended.

Claim 19 has been amended to make it clear that in the present invention, JDBC connectivity is used to dynamically and recursively generate queries for accessing and manipulating data content in a multi-processing environment. In the present invention, the use of JDBC is both dynamic and recursive in nature in that the results of one SQL operation are used to produce further SQL statements, and algorithmic-based transducers are used recursively to examine the system state and tasking to generate a stream of SQL statements in order to reach a desired goal. (See page 16, lines 21-23, page 17, lines 5-22, page 18, lines 9-11, page 25, lines 26-28, and page 24, line 8 through page 26, line 8 of the present application, as well as the references cited in relation to claims 7 and 12 above.) In Bogrett, by contrast, a SQL generator is used to generate a single SQL query request at a time, and there is no reference to the process being either recursive or dynamic.

Claims 20-23 have been rejected as obvious in light of Bogrett, Lipkin and Prologo (US 6,823,478). These claims relate to the use of a managing facility to create a test data set, compare the contents of two of more data sources, and perform various functions relating to data sets *in the context of the present invention.* The applicant respectfully submits that these claims should be allowable in light of the amendments made to claim 1.

Claims 24-26 have been canceled.

Claim 27 has been amended to make it easier to read and to incorporate the amendments made to claim 1. Claim 27 should be allowable for the same reasons that claim 1 is allowable.

Claim 28 has been canceled.

Claim 29 has been amended to incorporate the limitations of claim 28, which has been canceled. Claim 29, in its amended form, is not rendered obvious by Lipkin because the functions referred to in Lipkin, namely, saving and restoring object state and a set of core services, do not have anything to do with the portals of the present invention, in which each portal comprises one or more data viewers, in which the data viewers are dynamically linked to one or more data sources, and in which the data viewers from one portal can be merged into another portal.

As in claim 7, claim 30 has been amended to provide that the data viewers do not change format when they are merged into one portal from another. With this amendment, claim 30 should be allowable.

Claims 31-37 have been rejected on the same grounds as those applicable to claims 4-5 and 22; however, claims 31 and 32 relate to a directory controller, and the Office Action does not address the patentability of this feature in the context of the present invention. Accordingly, because no reason has been provided for the rejection of claims 31 and 32, they should be allowed.

Claim 33 is similar (but not identical) to claim 21 and should be allowed based on the amendments to claim 27.

Claim 34 has been amended to remove all references to trademarks and to incorporate the same limitations as in claim 4, as amended herein.

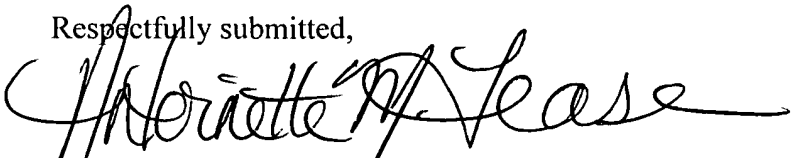
Claims 35 and 36 have been canceled.

Claim 37 has been amended in the same manner as claim 19 and, therefore, should be allowable.

Claims 38 and 39 have been canceled.

Claim 44 has been amended to incorporate the same amendments that were made to claim 1. Accordingly, claims 44-46 should be in a condition for allowance.

Respectfully submitted,



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October 18, 2006